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| 09/945,123  | 08/31/2001  | Robert A. Leydier    | 40.0048                       | 2062             |
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| ANDERSON & JANSSEN L.L.P.<br>9501 N. CAPITAL OF TX HWY #202<br>AUSTIN, TX 78759 |             |                      | EXAMINER<br>JACKSON, JENISE E |                  |
|   |             |                      | ART UNIT<br>2131              | PAPER NUMBER     |

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/945,123

Applicant(s)

LEYDIER ET AL.

Examiner

Jenise E. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 27-38, 43 and 44 is/are rejected.
- 7) ☒ Claim(s) 16-26, 39-42 and 45-48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12022005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-14 and 28-37, 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Kennedy et al(6,084, 967).

3. As per claim 1, Kennedy et al discloses a i.e. smart card(see ref # 105, fig. 2, col. 2, lines 30-32), including: a biometric voice sensor is inherent in Kennedy, because Kennedy discloses voice biometrics(see col. 2, lines 65-66, see col. 5, lines 10-20) including a portion of an integrated circuit(see col. 2, lines 43-49, see col. 5, lines 10-20), wherein the voice sensor is configured to detect the speech of a user and to produce a signal responsive to the speech of the user(see col. 2, lines 58-60, col. 3, lines 13-16, see col. 5, lines 10-20); and a voice processing circuit including a portion of the integrated circuit(see col. 2, lines 65-66), Kennedy discloses a voice processing circuit is configured to receive the signal from the biometric voice sensor and to process the signal to extract the signal characteristics, because the digital speech signal are applied to an end point detector, which detects the beginning and end of a word that is spoken by a person, that is used to locate the sample utterance(see col. 3, lines 6-22). Once the utterance has been found, it is extracted (see col. 3, lines 6-22).

4. As per claim 2, Kennedy discloses wherein the integrated circuit (105) further includes memory for storing information indicative of at least one user's voice characteristics (see col. 2,

lines 43-49, see fig. 2, sheet 2).

5. As per claim 3, Kennedy discloses means for establishing a data link to download data from which the stored information is derived (see col. 6, lines 10-35).

6. As per claim 4, Kennedy discloses wherein the device uses the stored information to authenticate the user(see col. 2, lines 55-65).

7. As per claim 5, Kennedy discloses wherein the information is indicative of the voice characteristics of multiple users and wherein the device is configured to authenticate each of the multiple users(see col. 5, lines 10-20).

8. As per claim 6, Kennedy discloses wherein the device contains user specific profile information for each of the multiple users that enable user specific device functionality (see col. 5, lines 10-20).

9. As per claim 7, Kennedy discloses wherein the integrated circuit is configured to authenticate a user of the device by comparing the characteristics of the voice sensor signal to information stored in memory indicative of a predetermined password(i.e. user's name)(see col. 2, lines 55-65).

10. As per claim 8, Kennedy discloses wherein the information stored in the memory is indicative of a user speaking a password and the integrated circuit is configured to authenticate a user by comparing the characteristics of the voice sensor signal to the information stored thereby determining whether the user is speaking the password(see col. 2, lines 55-65).

11. As per claim 9, Kennedy discloses wherein the stored information to identify the user(see col. 3, lines 6-16).

12. As per claim 10, Kennedy discloses wherein the integrated circuit is configured to

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execute a voice-transmitted command by comparing the characteristics of the voice sensor signal to information stored in the memory indicative of a user speaking the command(see col. 2, lines 55-65).

13. As per claim 11, Kennedy discloses wherein the integrated circuit is further configured to encrypt the voice sensor signal using an algorithm (see col. 5, lines 50-54).

14. As per claim 12, Kennedy discloses wherein the integrated circuit is configured to recognize the content of the user's speech(see col. 2, lines 55-65).

15. As per claim 13, Kennedy discloses wherein the recognized content is used to classify the speech by keywords(see col. 2, lines 55-65).

16. As per claim 14, Kennedy discloses wherein the device includes a plastic frame(see col. 1, lines 44-49, col. 2, lines 43-49) in which the integrated circuit is embedded(see col. 1, lines 44-49, see col. 2, lines 43-49) and wherein the plastic frame is compliant with ISO 7816, is inherent in Kennedy, because Kennedy discloses a smart card(see col. 2, lines 30-35), the smart cards are inherent for using ISO 7816 this is the standard for smartcards.

17. As per claim 28, Kennedy discloses a battery power source to power the device(see col. 2, lines 36-37).

18. As per claim 29, Kennedy discloses a wireless port configured to receive an electromagnetic signal to power the device(see col. 2, lines 20-35).

19. As per claim 30, Kennedy discloses wherein the communication interface unit further includes a wireless port for communicating information to and from the device in contactless applications (see col. 2, lines 20-35).

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20. As per claim 31, Kennedy discloses method of processing voice waves with a portable device, including: generating an electrical signal with a voice sensor of the portable device responsive to speech spoken into the voice sensor(see col. 2, lines 55-65); analyzing the electrical signal with a signal processing circuit of the portable device to detect characteristics of the voice; and comparing the detected voice characteristics with information stored in a memory of the portable device and indicative of a user's voice(see col. 3, lines 7-22, col. 5, lines 21-30, 63-66).

21. As per claim 32, Kennedy discloses responsive to the comparison between the detected voice characteristics and the information indicative of the user's voice, identifying the user(see col. 5, lines 63-67, col. 6, lines 1-3).

22. As per claim 33, Kennedy discloses responsive to the comparison between the detected voice characteristics and the information indicative of the user's voice, authenticating the user(see col. 5, lines 21-30, col. 5, lines 63-67, col. 6, lines 1-3).

23. As per claim 34, Kennedy discloses wherein authenticating the user includes comparing the characteristics of the voice sensor signal to information stored in the memory indicative of the user speaking a password(see col. 2, lines 55-64).

24. As per claim 35, Kennedy discloses executing a voice-transmitted command(see col. 3, lines 6-22).

25. As per claim 36, Kennedy discloses encrypting the electrical signal(see col. 5, lines 50-56, col. 6, lines 10-24).

26. As per claim 37, Kennedy discloses recognizing the content of the user's speech(see col. 2, lines 55-65).

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27. As per claim 43, Kennedy discloses responsive to the comparison between the detected voice characteristics and the stored information, enabling communication between the portable device and the external data processing system(see col. 2, lines 55-65).

***Claim Rejections - 35 USC § 103***

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 15, 27, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy in view of Maes et al.(6,411, 933).

30. Kennedy et al. discloses a voice sensor, a biometric voice sensor is inherent in Kennedy, because Kennedy discloses voice biometrics(see col. 2, lines 65-66). However, Kennedy does not disclose a pressure sensor. Maes discloses a pressure sensor(see col. 8, lines 25-65). It would have been obvious to combine Maes with Kennedy to include a pressure sensor, the motivation is that Maes discloses a need exists for techniques that can better guarantee that a speaker physically produced a subject utterance(see col. 2, lines 46-48 of Maes), a need exists for techniques that can better guarantee that a given biometric attribute has been physically produced by the person offering the biometric attribute as his own(see col. 2, lines 46-50 of Maes), thus Maes discloses pressure sensor, that measures the pressure waves of the human vocal tract(see col. 8, lines 25-37).

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31. As per claim 38, same motivation applies above. Kennedy does not disclose wherein generating the electrical signal includes measuring variations in an electrical parameter caused by the voice pressure wave modifying an electrical characteristic of a pressure sensor of the integrated circuit. Maes discloses wherein generating the electrical signal includes measuring variations in an electrical parameter caused by the voice pressure wave modifying an electrical characteristic of a pressure sensor of the integrated circuit(see col. 2, lines 46-50, col. 8, lines 25-37).

32. As per claim 27, Kennedy discloses a communication interface unit(i.e. cell phone/radiotelephone) including a portion of the integrated circuit and connected to the voice processing circuit(see col. 2, lines 20-65). Kennedy does not disclose wherein the interface unit includes a serial interface for communicating information through contacts according to an at least one of an ISO and USB protocol. However, Maes discloses wherein the interface unit includes a serial interface for communicating information through contacts according to an at least one of an ISO protocol(see col. 6, lines 1-8, col. 12, lines 5-18). It would have been obvious to include the serial interface for communicating information through contacts according to the ISO protocol of Maes with Kennedy, because providing a serial interface provides means for establishing a communication link between devices and other peripheral devices(see col. 6, lines 1-8 of Maes).

33. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy in view of Maes et al.(6,411, 933).

34. As per claim 44, Kennedy does not disclose wherein communication between the processing system and the smart card is done via at least one of an ISO port, a USB port, and a



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wireless port. However, Maes discloses a serial interface for communicating information through contacts according to at least one of an ISO protocol(see col. 6, lines 1-8, col. 12, lines 5-18). It would have been obvious to include the serial interface for communicating information through contacts according to the ISO protocol of Maes with Kennedy, because providing a serial interface provides means for establishing a communication link between devices and other peripheral devices(see col. 6, lines 1-8 of Maes).

35. As per claims 39-42, 45-48, they are objected to as being rejected on base claims. The reasons why these claims are allowable are for components that make up the pressure sensor. In prior art and non-patent literature there is not disclosed or taught the components that make up the pressure sensor.

36. As per claims 16-26 are objected to as being rejected on base claims. The reasons why the claims are allowable are because prior art fails to the components that make up the pressure sensor on an integrated circuit. In prior art and non-patent literature there is not disclosed or taught the components that make up the pressure sensor.

### ***Response to Amendment***

37. The Applicant has amended claim 16, thus the 112 rejection is withdrawn.

38. The Applicant states that Kennedy does not disclose an integrated circuit having a biometric voice sensor integrated into a portion of the integrated circuit. The Examiner disagrees with the Applicant. Kennedy discloses a smartcard(i.e. integrated circuit) that has a biometric voice sensor, because Kennedy discloses the smartcard can be used to enroll users identity(see col. 5, lines 10-14). The enrollee is identified and asked to voice a certain speech pattern(see col. 5, lines 14-15). Kennedy discloses that the digitized signals from that speech pattern are subject

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to pre-processing which provides pattern vectors, and these feature vectors are stored on the smartcard(see col. 5, lines 10-20).

39. The Applicant states that Kennedy does not inherently disclose a biometric voice sensor, because Kennedy discloses voice biometrics. The Examiner disagrees with the Applicant.

Kennedy implicitly discloses a biometric voice sensor, because the feature vectors of the users voice are stored on the smartcard(see col. 2, lines 55-57). Furthermore, a biometric voice sensor is implicitly disclosed, because the enrollee is asked to voice certain speech patterns and these patterns are digitized and stored on the smartcard(see col. 5, lines 10-20). Lastly, when the card is inserted in the portable device and the user is prompted to speak, a sensor is used in order to sense the users voice or speech and to perform an analysis of the users voice or speech(see col. 3, lines 6-22).

40. The Applicant states that Kennedy describes several alternative embodiments of the invention, one of which is the token may be comprised entirely of software. The Examiner agrees that Kennedy discloses that the token/smartcard can be software. However, Kennedy discloses several embodiments. The smartcard of Kennedy can be software or hardware. Kennedy discloses a smartcard is hardware(see col. 2, lines 32-49).

41. The Applicant states that Kennedy does not disclose an integrated circuit that has a voice processing circuit. The Examiner disagrees. Lastly, when the card is inserted in the portable device and the user is prompted to speak, a sensor is used in order to sense the users voice or speech and to perform an analysis of the users voice or speech(see col. 3, lines 6-22). Kennedy implicitly discloses an integrated circuit, because Kennedy discloses biometric verification circuitry(see col. 3, lines 6-10).

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42. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Both Kennedy and Maes recognize validating/authenticating a user based on biometrics and more specifically voice biometrics. However, Kennedy does not disclose a pressure sensor. Maes discloses a pressure sensor(see col. 8, lines 25-65). It would have been obvious to combine Maes with Kennedy to include a pressure sensor, the motivation is that Maes discloses a need exists for techniques that can better guarantee that a speaker physically produced a subject utterance (see col. 2, lines 46-48 of Maes), a need exists for techniques that can better guarantee that a given biometric attribute has been physically produced by the person offering the biometric attribute as his own(see col. 2, lines 46-50 of Maes), thus Maes discloses pressure sensor, that measures the pressure waves of the human vocal tract(see col. 8, lines 25-37).

#### ***Final Action***

43. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenise E. Jackson whose telephone number is (571) 272-3791. The examiner can normally be reached on M-Th (6:00 a.m. - 3:30 p.m.) alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



December 2, 2005



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